

nucleic acid sequence encoding a fatty acid hydroxylase that hybridizes to a nucleic acid probe encoding SEQ ID NO:4 under the following conditions:

- (a) hybridization for 16 hours at 65 °C in 7% SDS, 1 mM EDTA, 0.25 M Na<sub>2</sub>HPO<sub>4</sub> (pH 7.2), 1% BSA and
- (b) sequential washing at 65 °C in solutions containing 2X SSC, 1X SSC, and 0.5X SSC in addition to 0.1% SDS,

**wherein the oil's hydroxylated fatty acid content is increased compared to the hydroxylated fatty acid content of oil obtained from seeds of the same plant without the recombinant DNA construct.**

C<sup>1</sup>  
C<sup>2</sup>  
27. [AMENDED] Oil obtained from seeds of a transgenic plant, wherein said plant **comprises** ~~[is transformed with]~~ a recombinant DNA construct, said construct comprising a nucleic acid sequence encoding a fatty acid hydroxylase that hybridizes to a nucleic acid probe comprising SEQ ID NO:1 or SEQ ID NO:2 or SEQ ID NO:3 under the following conditions:

- (a) hybridization for 16 hours at 65 °C in 7% SDS, 1 mM EDTA, 0.25 M Na<sub>2</sub>HPO<sub>4</sub> (pH 7.2), 1% BSA and
- (b) sequential washing at 65 °C in solutions containing 2X SSC, 1X SSC, and 0.5X SSC in addition to 0.1% SDS,

**wherein the oil's hydroxylated fatty acid content is increased compared to the hydroxylated fatty acid content of oil obtained from seeds of the same plant without the recombinant DNA construct.**

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28-30. [CANCEL]

C<sup>2</sup>  
31. [AMENDED] The oil of claim [30] 27, wherein said nucleic acid encodes a fatty acid hydroxylase comprising SEQ ID NO:4.

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32-34. [CANCEL]

C3 35. [AMENDED] The oil of claim [34] 26, wherein said nucleic acid sequence comprises any one of the nucleic acids selected from the group consisting of SEQ ID NO:1, SEQ ID NO:2 and SEQ ID NO:3.

36. [AMENDED] The oil of any one of claims 26, 27, ~~[30,]~~ 31, [34] or 35, wherein said plant is selected from the group consisting of rapeseed, Crambe, *Brassica juncea*, *Brassica nigra*, meadowfoam, Canola, flax, sunflower, safflower, cotton, cuphea, soybean, peanut, coconut, oil palm and corn.

37. [Previously Added] The oil of claim 36, wherein said oil is pressed or extracted from the seeds of the transgenic plant.

38. [Previously Added] The oil of claim 37, wherein said oil is a component of a paint, varnish, synthetic polymer, resin, lubricant or cosmetic.

39. [Previously Added] The oil of claim 36, wherein the oil comprises one or more hydroxylated fatty acids.

40. [Previously Added] The oil of claim 39, wherein said one or more hydroxylated fatty acids is selected from the group consisting of ricinoleic acid, 12-hydroxyoctadec-*cis*-9-enoic acid (12OH-18:1<sup>cisΔ<sup>9</sup></sup>); lesquerolic acid, 14-hydroxy-*cis*-11-icosenoic acid (14OH-20:1<sup>cisΔ<sup>11</sup></sup>); densipolic acid, 12-hydroxyoctadec-*cis*-9,15-dienoic acid (12OH-18:2<sup>cisΔ<sup>9,15</sup></sup>); auricolic acid, 14-hydroxy-*cis*-11,17-icosadienoic acid (14OH-20:2<sup>cisΔ<sup>11,17</sup></sup>); hydroxyerucic acid, 16-hydroxydocos-*cis*-13-enoic acid (16OH-22:1<sup>cisΔ<sup>13</sup></sup>); hydroxypalmitoleic acid and 12-hydroxyhexadec-*cis*-9-enoic (12OH-16:1<sup>cisΔ<sup>9</sup></sup>).

41. [Previously Added] The oil of claim 40, wherein said hydroxylated fatty acids are free fatty acids, the acyl carrier protein (ACP) esters, coenzyme A (CoA) esters, the salts of these acids, the glycerolipid esters, the triacylglycerol esters, the wax esters, the estolides or the ether derivatives of these acids.